

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P307120

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CA08-W2A-U-5000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P307120
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L82765-HRP-CA08-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08"
ACRYLIC SHEET
Light Source: (168) 5000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2631.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

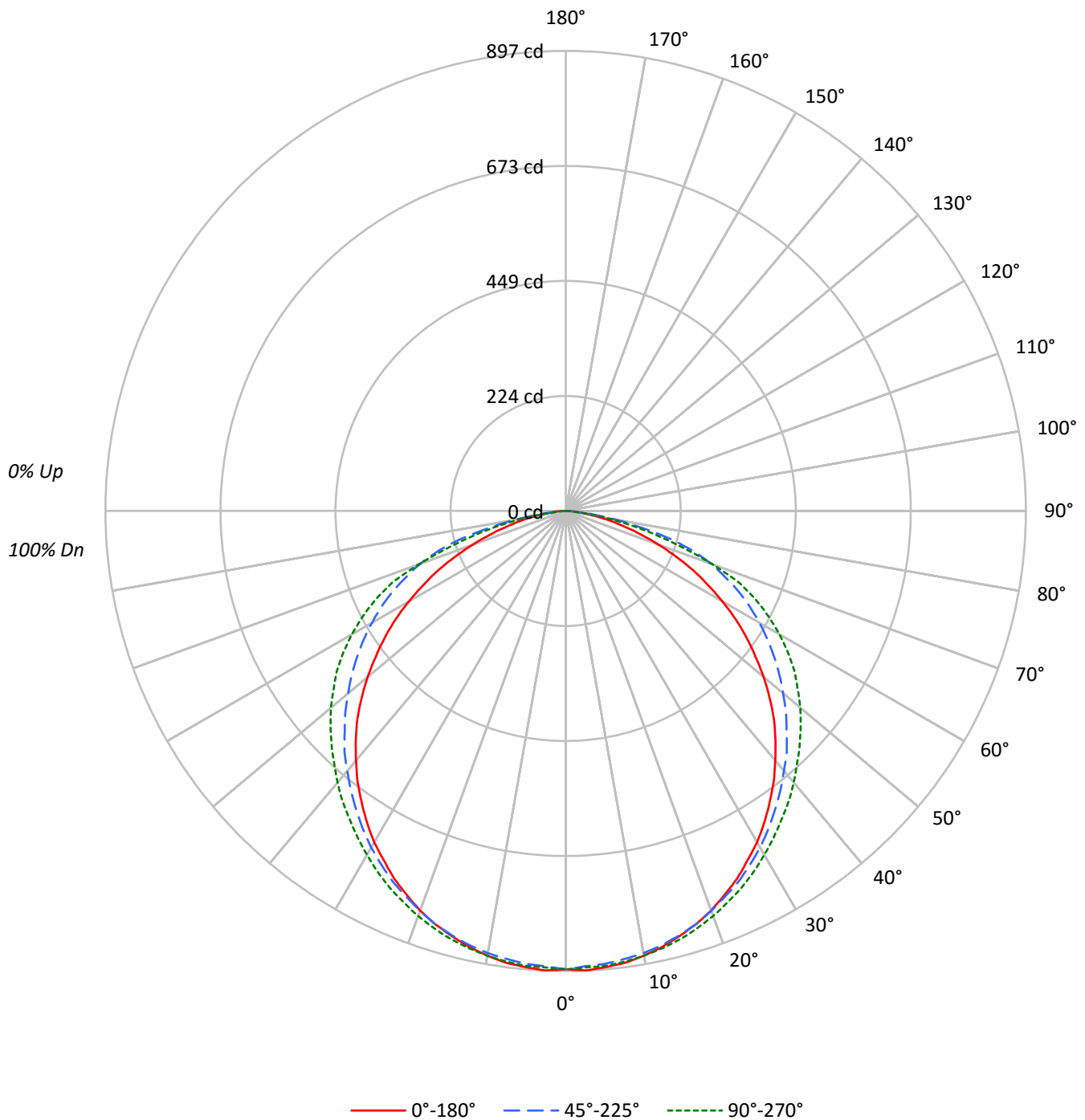
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2404	2404	2404
5°	2411	2394	2405
10°	2405	2392	2405
15°	2390	2386	2408
20°	2374	2376	2407
25°	2348	2368	2407
30°	2319	2355	2406
35°	2278	2337	2411
40°	2232	2325	2429
45°	2185	2317	2456
50°	2109	2317	2501
55°	2018	2329	2554
60°	1897	2347	2587
65°	1749	2371	2602
70°	1523	2376	2396
75°	1256	2210	1935
80°	987	1590	1296
85°	766	614	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.6	3.2
10°-20°	242.7	9.2
20°-30°	368.6	14.0
30°-40°	446.6	17.0
40°-50°	470.6	17.9
50°-60°	439.4	16.7
60°-70°	351.1	13.3
70°-80°	193.2	7.3
80°-90°	34.1	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	695.9	26.5
0°-40°	1142.6	43.4
0°-60°	2052.6	78.0
0°-90°	2631.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2631.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	893	890	886	892	890	85
15°	858	858	856	864	864	242
25°	791	793	798	809	811	364
35°	693	700	712	730	734	434
45°	574	585	609	636	645	442
55°	430	452	496	531	544	384
65°	275	309	372	403	409	270
75°	121	173	213	191	186	130
85°	25	31	20	12	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	893.5	893.5	893.5	893.5	893.5
2.5°	896.8	894.3	888.5	893.5	891.0
5°	892.7	890.2	886.1	891.8	890.2
7.5°	888.5	885.2	881.1	887.7	886.1
10°	880.3	877.8	875.3	881.1	880.3
12.5°	870.3	869.5	867.0	873.6	872.8
15°	857.9	857.9	856.3	864.5	864.5
17.5°	844.7	843.9	844.7	853.8	853.0
20°	829.0	829.0	829.8	840.6	840.6
22.5°	809.9	810.8	813.3	826.5	825.7
25°	790.9	792.6	797.5	809.1	810.8
27.5°	767.7	771.9	777.7	791.7	793.4
30°	746.2	748.7	757.8	771.1	774.4
32.5°	720.6	725.6	735.5	750.4	754.5
35°	693.3	699.9	711.5	729.7	733.8
37.5°	666.0	671.8	687.5	706.5	714.0
40°	635.4	645.3	661.9	683.4	691.6
42.5°	605.6	615.5	637.9	660.2	667.6
45°	574.2	584.9	608.9	636.2	645.3
47.5°	539.4	551.8	582.4	611.4	621.3
50°	503.8	519.6	553.5	585.7	597.3
52.5°	466.6	486.5	525.3	559.3	570.0
55°	430.2	451.7	496.4	531.1	544.4
57.5°	393.0	416.1	466.6	506.3	513.8
60°	352.4	380.6	436.0	470.7	480.7
62.5°	312.7	345.0	404.6	437.7	445.9
65°	274.7	309.4	372.3	402.9	408.7
67.5°	233.3	274.7	336.7	364.8	366.5
70°	193.6	241.6	302.0	315.2	304.5
72.5°	154.7	206.0	261.4	250.7	241.6
75°	120.8	172.9	212.6	191.1	186.1
77.5°	89.4	141.5	152.2	140.6	131.5
80°	63.7	111.7	102.6	87.7	83.6
82.5°	43.8	70.3	56.3	43.8	38.1
85°	24.8	31.4	19.9	12.4	9.9
87.5°	10.8	7.4	4.1	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)